# A Process Design for Auditing Fair Value

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**Abstract**

Today, accounting standards are designed to reflect the current market conditions. At the same time, primary aim of the changes in standards is to enable financial statement users to evaluate risk structures of financial statements easily. The shift from historical cost approach to fair value applications may be interpreted within this context. The differentiation in the approaches has the advantage of reflecting the economic substance better but it may also cause uncertainty and subjectivity in financial reporting. Because of these two factors, auditing risk of financial statements is increasing.

After the Enron Scandal in 2001 and recent financial crisis in 2008, the probable adverse effects of accounting with fair value and auditing sensitivities are being discussed severely in the fair value literature (Laux and Leuz, 2009; Zhou and Ding, 2009; Veron, 2008; Enria, A., Capiello, L., Dierick, Grittini, S., Haralambous, A., Maddaloni, A., Molitor, P., Pires, F. and Poloni, P., 2004; Novoa, Scarlata and Sole, 2009; Gwilliam and Jackson,2008; Benston, 2008; Ronen, 2002). In many situations, auditing of fair value accounting and estimation of fair value in a verifiable and objective way becomes the core subject in this field.

This paper aims to analyze possible problems related to the auditing of fair value and model a process design to prevent these problems. More specifically, it aims to develop a conceptual model with reference to a case study on auditing of investment properties.

**Keywords:** Fair Value, Valuation, Auditing

**JEL Classification:** M

## 1. Introduction

Two mostly debated and opposing views since 1960's – 1) financial capital maintenance approach which claims that the assets should be recorded with their historical values to maintain the nominal value of the capital put by the owners of the company 2) the necessity of obtaining information about the possible gains as well as the expected losses for the shareholders which became dominant in the developed capital markets, have led different thoughts about fair value or current market value and conventional historical cost concepts in the accounting literature. At the end of this process, the view to value assets with fair value has been adopted more prevalently and its application has been encouraged by the international accounting standards.

The definition of fair value in the U.S Financial Accounting Standards raised by the Financial Accounting Standards Board (FASB) is given as, *"the amount at which an asset is bought or sold in a current transaction between willing parties other than liquidation during the exchange of assets between the willing parties"*. International Accounting Standards Board (IASB) defines fair value as *"the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction"*. According to these definitions, fair value is indeed an idealized qualitative value. The current market value which is used practically in place of fair value is a quantitative value and cannot fully reflect the idealized value when the markets are not working efficiently. Hence, the usage of current market value based financial reporting when the conditions of perfect competition do not exist, may cause problems. Especially, in the developing markets where the capital markets are not liquid enough, the relation between fair values based financial reporting and the quality of the reported income create problems which are peculiar to the developing markets (He, Wong and Young, 2009; Duhovnik, 2007). For this reason, although fair value based financial reporting has been stimulated in line with international standards in many developing markets, the regulations on valuation mostly allow only usage of historical cost for many situations in practice. For example in Turkey, there are many regulations and laws about valuation like Turkish Commercial Code, Procedural Tax Law, Capital Markets Board Communiqué, Turkish Banking Association Uniform Accounting Plan, and Turkish Accounting Standards. Among these regulations, Turkish Accounting Standards in line with international standards stimulate the use of fair value mostly. Turkish Commercial Code has the most conservative provisions as it has been shaped according to the views of lenders (third parties) (Sensoy, 2003; pp:23-26).

The financial crisis of 2008 in developed markets has once again started the discussion about fair value. Accordingly, valuation of assets with current market value creates a leverage effect in boom periods. Adversely, when the markets go down in bad times, the use current market price intensifies the depth of the crisis and it's contagion effect because the value of the assets are written down and the capital diminishes severely ( Laux ve Leuz, 2009; Zhou and Ding, 2009). In numerous articles, authors like Veron (2008), Enria, A., Capiello, L., Dierick, Grittini, S., Haralambous, A., Maddaloni, A., Molitor, P., Pires, F. and Poloni, P. (2004), and Novoa, Scarlata and Sole (2009) focus on the relation between fair value applications and economic cycles.

The most important problem here is the fact that market value is more relevant for financial statement users when they make decisions about their investments but at the same time; it is less reliable because it is not objective and verifiable. Hence, there should be a tradeoff between relevancy and predictive value of current market value based financial reporting for the decision-making of financial statement users and the objectivity and reliability of historical cost based reporting.

Conventional historical cost accounting theoreticians criticize current market value approach on the reason that it is against the realization principle of revenues and gains. According to this principle, recognition of unrealized gains as a result of increases in the market value of the assets (especially in the case of fixed assets) when there is no exchange for economic reasons has been reacted by historical cost defenders. Conventionally, conservatism principle in accounting requires that unrealized losses should be recognized but unrealized gains should not be recognized. On the other hand, from fair value perspective, unrealized but probable gains in the future represent economically substantial events which are related to the current reporting period and therefore they should be recognized and recorded (Kam, 1990; p.432). Here, fair value estimation increases the possibilities where the accounting managers' use their judgments. On the other hand, for auditors this makes it more difficult to audit fair value estimations.

In the Enron case which is one of the biggest corporate governance scandals of the 2000's, it has been seen that misuse of current market value based reporting may lead manipulation of financial information. This manipulation has been caused by the asymmetric behavior of the company management who is willing to recognize current market value gains but unwilling to recognize current market value losses. The company management has also encouraged consulting firm to use unreliable methods to estimate fair value. The consulting firm which gave valuation service was also auditing the company (Gwilliam and Jackson, 2008). Benston (2006) who analyzed Enron case stated that based on chronologically ordered analysis of its activities and investments, Enron's misuse of fair-value accounting is substantially responsible for its demise. Enron's accountants (with the auditing firm Andersen's approval) extensively used level 3 estimates (internally generated estimated values) and, in some instances, level 2 estimates (market prices for similar assets), for its external and internal reporting rather than level 1 estimates (market price of the same asset) which are the closest values to fair value as it has been accepted by the international standards (Note 1). They also used (again with Andersen's approval) accounting devices to report cash flow from operations rather than financing and to otherwise cover up fair-value overstatements and losses on projects undertaken by managers whose compensation was based on fair values (p.465). Another auditing problem faced in Enron case was the fact that fair value estimates of financial statement items were confirmed by the consulting firm which was also assigned for auditing the company's financial statements. As a result, Sarbanes Oxley Act (2002) forbade auditing firms to give consultancy services primarily on valuation.

For Ronen (2002), theoretically auditors are representatives of shareholders but in practice company managers (client-principal) choose and assign auditors (agent) and as a result of the nature of their relation, auditors become the representative of management and behave according to their interest. After Enron scandal, Ronen (2002) suggests a reform – financial statements insurance- to change this principal-agent relation between management and auditors in favor of shareholders who should be the real beneficiaries of the auditing services. Companies insure their financial statements against the losses to which shareholders may incur due to accounting misstatements and the insurance mechanism whose interests are aligned with those of the shareholders will select the auditors and pay the auditing fee.

As it has been summarized above, in many situations the most important problems about fair value become the auditing of its estimates used in reporting and whether these estimates are verifiable or not. For this reason, in this article, it is aimed to put forward a process design for guiding the analysis and prevention of possible problems regarding the auditing of fair value. For this aim, more specifically, it is aimed to develop a conceptual model with reference to the fair value auditing process of non-financial fixed assets. In the remaining of the paper, Investment Properties will be held from IASB (International Accounting Standards Board) and IVSC (International Valuation Standards Valuation Council) perspectives. Then, specific issues related to the auditing of fair value will be discussed. Finally, a case study- analysis of a real estate valuation report- will be conducted and critical issues will be pinpointed and accordingly a conceptual model will be developed for guiding the auditing process of fair value estimates.

## 2. Investment Properties From the Perspectives of International Accounting Standards Board (IASB) and International Valuation Standards Committee (IVSC)

In the international standards, non-financial fixed assets to be valued may be classified as tangible fixed assets (like property, plant and equipment) and investment properties. The IAS 16 – Standard on Property, Plant and Equipment- and IAS 40 –Standard on Investment Properties- are the respective standards. For property, plant and equipment, the valuation is needed to be done mostly in the cases of going public, credit procurement from financial institutions, mergers and legal disputes. A revaluation is made using the market value of the assets at the date of the revaluation less any accumulated depreciation and gains or losses are never taken to income because the revalued amounts replace the original cost and the restated value is used as a new base for depreciation and disposal calculations. But, for investment property (especially in the case of real estate investment funds) which are held for rentals or capital appreciation rather than being owner-occupied, revaluation is needed to be done periodically after its initial recognition at historical cost and revaluation gains or losses are immediately taken to income. An independent qualified valuation expert chooses the relevant method for determining the fair value (market, income or cost methods).

The fair value of land and buildings is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuers. The fair value of items of plant and equipment is usually their market value determined by appraisal. If there is no market-based evidence of fair value because of the specialized nature of the item of property, plant and equipment and the item is rarely sold, except as part of a continuing business, an entity may need to estimate fair value using an income or a depreciated replacement cost approach (IAS 16, paragraph 32 and 33).

International Valuation Standards (IVS) suggest three alternative methods for measuring fair value under some limitations.

- **Market Approach** uses prices and other relevant information generated by market transactions involving identical or comparable assets. In general, this technique uses comparables sales prices in a competitive market. The market is assumed to determine the prices but this entails adequate number comparable assets (IVSC, Concepts Fundamental to Generally Accepted Valuation Principles (GAVP), 9.2.1.1.). This method is not suitable in the markets where there are a limited number of comparable assets or where the price changes happen frequently as in the times of economic crisis and instability.

- **Income Approach** uses future cash flows and earnings and discounts them to their present values. (IVSC, Concepts Fundamental to Generally Accepted Valuation Principles (GAVP), 9.2.1.2.). In this regard, three methods are used, -income capitalization, gross rent multiplier and discounted cash flows-. In this approach, objective determination of annual income, capitalization (discount) rate, risk free rate of return, annual gross rent income and gross rent multiplier have critical importance. As discount rate, either internal rate of return or weighted cost of capital can be used. In similar circumstances, similar rate should be used. To overcome this judgment problem, national capital market authorities should make clear definitions

- **Cost Approach** is used in cases where there is no comparable asset or income estimation could not be made. This approach is based on the amount that currently would be required to replace the service capacity of an asset and is often called as replacement cost.(IVSC, Concepts Fundamental to Generally Accepted Valuation Principles (GAVP), 9.2.1.3.). In this approach, replacement cost estimate and adjustments for obsolescence are critically important.

The result is communicated to the related parties through IVS 3 valuation report (IVS 3, Valuation Reporting). Valuation experts should explain necessary information regarding valuation in order for firms to present their financial statements in accordance with the international standards (IVA 1 Valuation for Financial Reporting, 5.4.2.). The necessary data involves;

a) The date of valuation

b) Whether the valuation is done by a professionally qualified valuer.

c) The methods chosen to be applied and assumptions used

d) To what extent the asset values are determined directly from observable prices in an active market or recently observable prices obtained from exchanges between the parties under objective conditions or estimations based on any other valuation techniques.

## 3. Auditing Problems Related to Fair Value Accounting

There are two problematic areas in auditing of fair value estimates. Firstly, fair value estimation process is complex and entails specific expertise knowledge like civil engineering knowledge when the cost approach is used. The associated risks are the possibility of using irrelevant data and subjectivity due use of judgment. Hence, fair value estimates may easily be manipulated. Second problem is the fact that no matter how elaborately the estimation is done, when the market fluctuates especially during the crisis, it is highly possible that fair value does not reflect the reality. The first problem is related to the auditor and may be overcome by professional elaboration. The second problem is independent of the auditor but he must be careful about how fair value estimates are affected from changes after the balance sheet date.

Auditors should know the techniques used in fair value calculations and additionally be able to evaluate the validity of basic assumptions. They should provide data from independent sources other than the data provided by the insiders because of the risks of error and fraud. There are limited data sources that can be accessed by the auditors (Johnson, 2007) so collecting reliable data sets should be a service to be outsourced by the auditors. A national authority providing the data needed may enhance the validity of audit reports both nationally and globally and uncontrollable factors faced in auditing of fair value may be overcome to a great extent.

The main problems that can be faced while fair value or accounting estimates are being audited are listed below (Pannese and DelFavero, 2010, p.46) ;

- Confirming whether the restated amounts on the financial tables are reflecting the reality or not is very difficult. Therefore, the auditors take risk when they form their views.
- Because there are limited reliable data sources that can be reached by the auditors, testing the validity of fair value estimates is very difficult
- Fluctuations in the financial data may lead to deviations from the real conditions.
- The management may manipulate fair value calculations
- The trainings given to the auditors may be inadequate due to the pace of changing environment.

King (2006, p.42) who has analyzed U.S applications, show that fair value estimations made by various professional valuers deviate 10% on average. This situation is also an uncontrollable factor for the auditors. The financial statement items which entail fair value and accounting estimations are listed in Figure 1 in the appendix.The risk areas for the auditors may be pinpointed below;

- Testing the assumptions used in fair value calculations
- Evaluation of the suitability of the fair value calculation model and it's conformity with international valuation standards
- Testing the inputs like cash flows, discount rate and period estimates.
- Assessment of market fluctuations and events after balance sheet date.
- Evaluation of adequacy of financial statement foot notes.

## 4. Auditing Fair Value Calculations of Investment Properties and a Case Study

There are certain risks associated with the valuation of investment properties even if the valuation is done in conformity with the international accounting and the valuation standards. The auditing risks inherent in fair value calculations of investment properties may be stated as;

- The estimation of fair value includes subjective judgments

• The discount rate used in the calculations may lead to meaningless values in times of crisis and economic fluctuations which do not reflect the real values.

• The risk of financial statements not reflecting the reality also affects the comparability with previous periods financial statements.

• The valuation is done under the assumption that the firm is a going concern. Probable delays in the firm's operations, market's contraction, and interest rate fluctuations may lead to deviations from fair value.

These limitations should be explained in the valuer's report. The auditor is not liable for the accuracy of the estimations but may state a negative view about the items in the financial statements if these are not representing the current values

**Case Study: A Valuation Report on an Investment Property and the Auditor's Investigation**

Investment properties may be classified as the ones which are already operating and the ones which are being constructed for future use. Both operating and being constructed investment properties are restated at fair value in line with international standards with the approval of the independent valuer. In this context, auditors should investigate assumptions made by the valuer, limitations, valuation model and related inputs according to the international standards and also take into account the conditions that could harm the objectivity of the valuer. With this regard, a case study on valuation report of a real estate investment fund listed on ISE (Istanbul Stock Exchange) will be analyzed from an auditor's perspective.

Accordingly,

• It has been explained under which conditions or limitations the fair value calculation is acceptable.

•A conformity declaration has been made by the valuer. Accordingly, it has been understood by the auditor that the valuer has necessary professional certificates and there is no interest conflict between the parties affecting the objectivity.

•General assumptions used in the valuation have been explained. Their validity has been tested and confirmed by the auditor. The assumptions are found to be reflecting the market conditions.

•Ownership and development plan of the real estate has been explained. The auditor has investigated land registry and found out that the real estate can be sold because there is no mortgage on the real estate.

•General and specific information about the real estate has been explained. The auditor has stated that general economic conditions and specific conditions related to the area at which the real estate takes place have been included in the analysis made by the valuer.

•From the explanations of the valuer, the analysis about the physical situation , location, technical and structural properties, which model has been chosen (market, income or cost), assumptions used in the valuation and the reasons for using them, cash flows, sale and rent amounts are well understood by the auditor. It has been concluded that the inputs used in the valuation model are the best possible inputs under existing limitations.

•Evaluation of the results; the value calculated by applying cost method is 147.060.384 TL and the value reached by applying discounted income method is 147.133.292 TL. Taking into account other factors, the most appropriate fair value is the one calculated by the cost method which is accepted as more realistic.

•The form of the valuation report is also in conformity with the standards. The date of valuation, signatures are all explained. Finally, the auditor states that the valuer acted in line with international standards on valuation.

In the audit report, all investment properties are listed, the valuation methods, valuation dates, fair values and value increase or losses have all been explained and it is stated that there is no mortgage or confiscation on the investment properties. As a final point, the auditor compares the fees paid to the valuer with similar valuation services fees and becomes sure that there is no conflict of interests. The auditor may follow the suggested steps in Figure 2 (appendix) to audit valuation reports of financial statement items.

## 5. Conclusion and Recommendations

The probability of fair value and accounting estimations' not reflecting the current market conditions expose auditors to risk of producing misstatements which will affect shareholders decision making process in return. Within this context, in order to standardize fair value and accounting estimations and enable harmonization with the international standards, an independent board at the national level should be established which will provide more reliable data and specifically detailed criterions for using fair value assumptions and models. This may enhance the validity of audit reports both nationally and globally and uncontrollable factors faced in auditing of fair value may be overcome to a great extent.

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## Notes

Note: This hierarchy is established by SFAS 157 (Statement of Financial Accounting Standards) and is aimed to assign priorities to the inputs that valuation techniques use to measure fair value. IFRS do not have a consistent hierarchy that applies to all fair value measurements but instead individual IFRSs provide guidance about which information should be given priority when measuring fair value.

## Appendix:

| | |
|---|---|
| **Current Assets** | **Current Liabilities** |
| Foreign Exchange Transactions (IAS 21) | Debt |
| Receivables (IAS 18) | Financial Debt (IAS 39) |
| Inventory (IAS 2) | Employment Benefits (IAS 19) |
| | **Long-term Liabilities** |
| | Debt |
| **Non-Current Assets** | Financial Debt (IAS 39) |
| | Employment Benefits (IAS 19) |
| Tangible Fixed Assets (IAS 16-36) | |
| Intangible Fixed Assets (IAS 38) | |
| Investment Properties (IAS 40) | **Equity** |
| Assets Held For Sale (IFRS 5) | Share-based transactions (IFRS 2) |
| Financial Leasing (IAS 17) | |

Figure 1. Financial Statement Items Involving Fair Value and Accounting Estimates

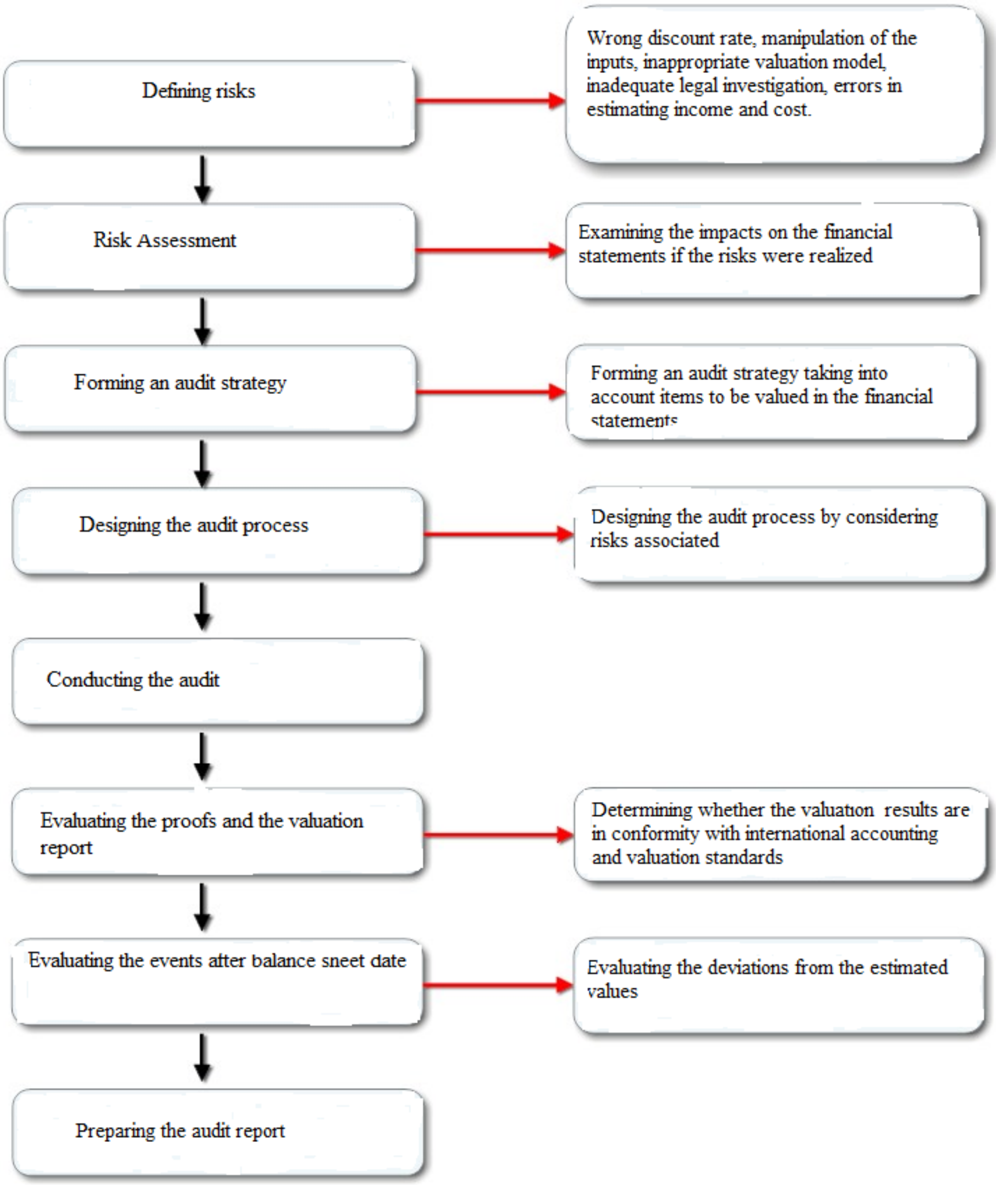


Figure 2. Auditing Process of a Valuation Report

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